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THE POLIO VACCINE -- A TRIUMPH OF MILLIONS

Mr. Speaker, it is now a full decade since the first polio vaccine was made generally available to the American people. The word polio, which only a few years ago brought dread to parents and young people around the world, is today, thankfully, an almost forgotten word. When at one time in our recent history, the first warm winds of the spring brought with them a cold apprehension and fear of the dangerous summer months ahead, today's children can freely swim and play, confident in the protection assured them by the polio vaccine.

One seldom hears of polio today. But it is not difficult for us to remember just how much a part of our daily lives this greatcrippler was--not merely to those of us whose loved ones and friends were stricken or who were themselves victims--but to all of the rest of us as well, who knew polio's effects and silently wondered if we or our families would be next. Just thirteen years ago, in 1952, there were over 54,000 cases of polio in the United States; last year, only 121 cases were reported. After three months of this year, only six cases are on record.

Who are the heroes of this great victory? There are many names we can single out in the fight against polio--a fight which did not begin nor end with the discovery of an effective vaccine--but in reality it was not the triumph of a few isolated men or even of a single group. Rather it was the triumph of millions--scientists, physicians, administrators, public health and other public officials, volunteer health agencies, fund raisers, those in advertising and public relations--and of all the countless other Americans who donated time and money to the research effort.

In naming just a few of those who took part in the fight against polio we might arbitrarily begin with Dr. Karl Landsteiner, a great Viennese microbiologist, who in 1908 first succeeded in inducing polio in a laboratory animal, the rhesus monkey. Soon after, Dr. Simon Flaxner of the Rockefeller Institute concluded that polio was a virus disease and predicted the quick development of an effective vaccine against it.

But the use of the rhesus monkey in research presented many technical and financial problems. This factor precluded much further progress toward the development of a vaccine until 1939, when Dr. Charles Armstrong of the National Institutes of Health found a way to transmit one of the three types of polio-viruses to cotton rats and mice--a technique which immensely speeded up research. Spurred on by financial support from the National Foundation for Infantile Paralysis, the U.S. Public Health Service, and other sources, many virologists began to work on vaccines. Then, as we well know, the first usable killed-virus vaccine was produced by Dr. Jonas Salk of the University of Pittsburg. After sensitive animal tests, the vaccine was in 1954 finally given the largest medical field trials in American history when almost two million school children (with the consent of their parents) participated. The Salk vaccine was found to be up to 90 percent effective and was licensed for sale by the NIH Division of Biologics Standards on April 12, 1955, the same day the results of the clinical trials were announced.

The long sought for vaccine was a reality, but this was only to be a new beginning. The first supplies of the vaccine, much of it purchased by the National Foundation for free distribution, were limited, but the demand for it was overwhelming. The Surgeon General of the U.S. Public Health Service summoned an advisory committee of polio authorities and representatives of parent and consumer groups to recommend a plan to assure the vaccine's orderly use. The committee established a system of priorities which would give the vaccine to

groups in the population most susceptible to polio.

The success of this system was particularly noteworthy since it was entirely voluntary and depended upon the American sense of fair-play to see that those whose risk were greatest received vaccine first. The producers of the vaccine also cooperated by selling to the states only in proportion to the amount of high priority individuals who resided in them. The Public Health Service administered the program until late in 1956 when the vaccine was more plentiful and the program was discontinued.

To assure that no children or pregnant women should be deprived of vaccine because they could not afford it, Congress, in 1955, passed the Poliomyelitis Vaccination Assistance Act which gave grants-in-aid to the States to be used for the purchase of vaccine and the administration of vaccination programs. Over \$50 million was allocated under this act and physicians in private practice gave freely of their time and service to administer the publicly purchased vaccine.

Then, unexpectedly, four years after the introduction of the vaccine the number of polio cases began to rise again. The Polio Surveillance Unit of the PHS's Communicable Disease Center gathered evidence from health departments across the country which showed that the increase was an effect of the waning public interest in vaccination rather than a reflection on the lack of effectiveness of the vaccine.

Acting on this revelation, the Public Health Service, American Medical Association, and the National Foundation issued warning statements to make the public more aware of the great need for vaccination. The President of the United States twice issued a personal plea to the American people to take vaccine. Manufacturers agreed not to curtail production despite rising stockpiles of the quickly out-of-date vaccine. In response to these efforts many communities organized intensive drives that succeeded in producing a sharp rise in demand.

As it soon became apparent that public interest and awareness would need regular boosting, a series of nationwide advertising campaigns were launched by the Advertising Council. Billboards, newspaper advertisements, car cards, and top talent in radio and television told the polio story and urged vaccination.

With the licensing in 1961 and 1962 of the three types of oral, live-virus polio vaccine developed by Dr. Albert Sabin of the University of Cincinnati, added impetus was given to the vaccination drive, since prevention was now literally as easy as swallowing a lump of sugar.

Today, as the result of all these efforts, polio has almost passed into history. As long as our newborn are properly vaccinated it will continue to be a plague in the American past. The Public Health Service estimates that at least 212,000 Americans have been saved from death or crippling from polio since 1955. This remarkable achievement is the accomplishment of all Americans -- scientists, school children, vaccine manufacturers, and others. It is a fine -- almost unique -- example of the things the collective spirit of the American people can do when they work together for a better world for themselves -- and for the generations yet unborn.

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